Creodonta. It has, as in *Phenacodus,* no orbital ring. Thu fa.uin.erus resembles that of a Carnivore rather than that of ar Ungulate. The carpus and tarsus are serial. The fibula articulates with both the calcaneum and the astragalus, which is not the case with *Phenacodus.* It is suggested that these animals are ancestral forms of the Chalicotheres. In the brain the hemispheres do not cover the cerebellum,

More primitive apparently than *Phenacodus* was the less-known genus *Suprotogonia*> or *Protogonia* [1] as it has been called. The best-known species is *18. puercensis,* so called from its occurrence in the Puerco beds of the American Eocene. It was a slender, long-limbed creature, smaller than *Phenacodus,* with a long and heavy tail as in that animal. Lake *Phenacodus* it was semiplantigrade, and shows more likenesses to the Creodonta. The skull is only known by a part of the lower jaw with teeth, and by the teeth of the upper jaw. The vertebrae are not entirely preserved, but enough remain to show that the animal had a tail of 16 or 17 inches, which is a considerable length when compared to its height, about a foot at the rump. In the fore-limb the most noteworthy point is that the ulna has a convex posterior border as in the Creodonts, the same border in *Phenacodus* being concave. The humerus is slender, with less-marked tuberosities. The fifth digit seems to have been less reduced. The phalanges seem to have borne horny sheaths somewhat intermediate between hoofs and claws. The pelvis is described as being, as is also thab of *Phenacodus,* rather like that of the Creodonta. The right hind-limb is known in all its details. It appears that the bones are not serial but interlocking; this, however, on the views with regard to the relations of these two forms of tarsus mentioned on p. 198, does not militate against regarding *Euprotogonia,* as the ancestor of the genus *Phenacodus.*

• The third toe is the pre-eminent one, the animal thus being Perissodactyle. The lateral digits are larger than in *Phenacodus,* and the metatarsals and the phalanges are slightly curved, which is again a Creodont character as compared to the perfectly straight corresponding bones of *Phenacodus.* It seems evident that this

animal is to be looked upon as a more ancient type than *Phenacodu$*[1] even if not as its actual ancestor.

Another group of the Condylarthra contains 'the genus *Pertipychus* and some others. *Periptychus* has the full dentition

[1] See W. D. Matthew, *Bull. Afrvcr. Mus. Nat. Hist.* ix. 1897, p. 303.